Interview-Style Questions Based on Conditional Statements

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# 1. Check Even or Odd
# Question: Determine whether a number is even or odd. Explanation: A number is even if
# it is divisible by 2. Otherwise, it's odd. - Input: Number = 6 - Output: Even number
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Number = int(input("enter the number"))
if Number % 2 == 0:
    print(f"{Number} is even number")
else:
    print(f"{Number} is odd number")
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# 2. Divisible by 5 but Not by 10
# Question: Check if a number is divisible by 5 but not by 10. Explanation: Use modulo (
# %) to check if the number % 5 == 0 and number % 10 != 0. - Input: Number = 25 - Output:
Satisfy

Number = int(input("enter the number"))
if Number % 5 == 0 and Number % 10 !=0 :
    print(f"{Number} is Satisfy")
else:
    print(f"{Number} is not Satisfies")
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# 3. Biggest Among Two Numbers
# Question: Find the biggest number among two. Explanation: Use comparison operators (>)
#  to check which number is greater. - Input: A = 4, B = 7 - Output: Biggest is: 7

num1 = int(input("enter the number1: "))
num2 = int(input("enter the number2: "))
if num1 > num2:
    print(f"Biggest is {num1}")
else:
    print(f"Biggest is {num2}")
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# 4. Smallest Among Two Numbers
# Question: Find the smallest number among two. Explanation: Use comparison operators
#  (<) to find the smaller value. - Input: A = 4, B = 7 - Output: Smallest is: 4

num1 = int(input("enter the number1: "))
num2 = int(input("enter the number2: "))
if num1 < num2:
    print(f"Smallest is {num1}")
else:
    print(f"Smallest is {num2}")
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# 5. Divisible by 2, 3, and 6
# Question: Check if a number is divisible by 2, 3, and 6. Explanation: If a number
# is divisible by both 2 and 3, it is also divisible by 6. - Input: Number = 18 - Output: Satisfy

num1 = int(input("enter the number: "))
if num1 % 2 == 0 and num1 % 3 == 0:
    if num1 % 6 == 0:
        print("Satisfies the condition")
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    else:
        print("Satisfies the condition")
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# 6. Voting Eligibility
# Question: Check if a person is eligible to vote (age >= 18). Explanation:
# A person is eligible to vote if their age is 18 or above. - Input: Age = 19 - Output: Eligible
to vote

age = int(input("enter your age: "))
if age >= 18:
    print("Eligible to vote")
else:
    print("Not eligible to vote")
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# 7. Student Pass/Fail Based on All Subjects >= 35
# Question: Check if a student passed all subjects (maths, physics, chemistry).
# Explanation: Student passes only if marks in all subjects are 35 or more. - Input: Maths = 40,
Physics = 36, Chemistry = 30 - Output: Fail

Maths = int(input("enter the marks secquired in maths: "))
Physics = int(input("enter the marks secquired in physics: "))
Chemistry = int(input("enter the marks secquired in chemistry: "))

if Maths >= 35 and Physics >= 35 and Chemistry >= 35 :
    print("Pass")
else:
    print ("Fail")
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# 8. Student Pass if Passed Any One Subject (>= 35)
# Question: Check if the student passed at least one subject.
# Explanation: Use logical OR to check if any one subject has marks >= 35. - Input: Maths =
20, Physics = 38, Chemistry = 25 - Output: Pass

Maths = int(input("enter the marks secquired in maths: "))
Physics = int(input("enter the marks secquired in physics: "))
Chemistry = int(input("enter the marks secquired in chemistry: "))

if Maths >= 35 or Physics >= 35 or Chemistry >= 35 :
    print("Pass")
else:
    print ("Fail")
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# 9. Student Pass if Passed Any Two Subjects
# Question: Check if the student passed any two out of three subjects.
# Explanation: Use a counter or logical conditions to verify two subjects >= 35. - Input:
Maths = 40, Physics = 20, Chemistry = 36 - Output: Pass

Maths = int(input("enter the marks secquired in maths: "))
Physics = int(input("enter the marks secquired in physics: "))
Chemistry = int(input("enter the marks secquired in chemistry: "))

if Maths >= 35 and Physics >= 35 or Physics >= 35  and  Chemistry >= 35 or Chemistry >=
35 and Maths >= 35:
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    print("Pass")
else:
    print ("Fail")
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# 10. Biggest Among Three Numbers
# Question: Find the biggest number among three. Explanation:
# Compare each pair of numbers using if-else conditions. - Input: A = 7, B = 4, C = 9 - Output:
Biggest is: 9
num1 = int(input("enter the number1: "))
num2 = int(input("enter the number2: "))
num3 = int(input("enter the number3: "))
if num1 < num2 and num2 > num3:
    print(f"Biggest is : {num2}")
elif num2 < num1 and num1 > num3:
    print(f"Biggest is : {num1}")
else:
    print(f"Biggest is : {num3}")
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# 11. Smallest Among Three Numbers
# Question: Find the smallest number among three. Explanation:
# Use comparison logic to determine the minimum value. - Input: A = 7, B = 4, C = 9 -
Output: Smallest is: 4

num1 = int(input("enter the number1: "))
num2 = int(input("enter the number2: "))
num3 = int(input("enter the number3: "))
if num1 > num2 and num2 < num3:
    print(f"Smallest is : {num2}")
elif num2 > num1 and num1 < num3:
    print(f"Smallest is : {num1}")
else:
    print(f"Smallest is : {num3}")
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# 12. Perfect Square or Not
# Question: Check if a number is a perfect square. Explanation:
# A number is a perfect square if the square of its square root equals the number. - Input:
Number = 49 - Output: Perfect square

num1 = int(input("enter the number1: "))
if num1 < 0:
    print(f"{num1} is not a perfect square")
else:
    i = 0
    while i < num1:
        if i*i == num1:
            print(f"{num1} is a perfect square")
            break
        i+=1
    else:
        print(f"{num1} is not a perfect square")
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```python
# 13. Cars Required for Members (Max 5 per car)
# Question: Calculate how many cars are needed for a given number of people.
#  Explanation: Divide total people by 5 and round up using ceiling logic. - Input: Members = 17 - Output: Cars needed = 4

persons = int(input("enter the no. members: "))
if persons % 5 == 0:
    print(f"cars needed {(persons // 5)}")
else:
    print(f"cars needed {(persons // 5)+1}")
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# 14. Second Biggest Among Three Numbers
# Question: Find the second largest number among three inputs.
#  Explanation: Use sorting or nested conditions to find the second largest value. - Input: A = 10, B = 25, C = 18 - Output: Second biggest: 18

num1 = int(input("enter the number1: "))
num2 = int(input("enter the number2: "))
num3 = int(input("enter the number3: "))
if num1 > num2 and num2 > num3 or num1 < num2 and num2 < num3 :
    print(f"Second biggest: {num2}")
elif num2 > num3 and num3 > num1 or num2 < num3 and num3 < num1:
    print(f"Second biggest: {num3}")
else:
    print(f"Second biggest: {num1}")
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```python
# 15. Leap Year or Not
# Question: Check if a given year is a leap year. Explanation:
#  A year is a leap year if it is divisible by 4, and (not divisible by 100 unless divisible by 400). - Input: Year = 2024 - Output: Leap year
year = int(input("enter the number of year: "))
if year % 4 == 0 and (year %100 != 0 or year %400 == 0):
    print("leap year")
else:
    print("not a leep year")
```